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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/467,569	12/20/1999	RAJESH SUNDARAM	6487/54045	2549

7590 07/17/2003

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EXAMINER

SCHNEIDER, JOSHUA D

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 07/17/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/467,569

Applicant(s)

SUNDARAM ET AL.

Examiner

Joshua D Schneider

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 6/17/03 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☒ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/17/2003 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 19 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. The terms "fraction of a second" and "small fraction of a second" in claims 19 and 20 are a relative term that renders the claim indefinite. The terms "fraction of a second" and "small fraction of a second" are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The specification fails to teach a small fraction of a second differing from real time.

5. All further rejections are made in light of the specification as best understood in light of the previous objections and rejections.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-13, 15-16, 18-20, 24, and 27-29, are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant admitted prior art (AAPA) in further view of U.S. Patent 5,953,010 to Kampe et al. and U.S. Patent 5,386,360 to Wilson et al. With regards to claims 1, 7, 11-13, and 28, the AAPA teaches several features of the computer to be common, including the system having a visual display (page 1, line 23), an exterior serial bus port that is very commonly a USB port (page 1, line 21), and an operating system that monitors the USB plug and play bus topology and that control access to the USB (page 1, line 28-29). The AAPA further teaches that the operating system creates a visual display whenever a USB device is plugged or unplugged (page 3, line 4-6), and that this is accomplished because the operating system has some message handling capabilities (Figure 11 A&B), which distribute messages to the appropriate applications. This includes taking the depiction of the mouse cursor and changing it from a first state to an hourglass icon in order to inform the user that the system is busy (page 3, lines 4-6), and then back to the cursor symbol when the system is again ready for use. The applicant states that the changing of the cursor from a first state, to a second state, and then to a third state, fails

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to intelligibly show the user what process is taking place, and is also to slow to prevent user actions which may impair the system. The AAPA fails to describe the known operating system generating the configuration messages and the descriptive notification to the user that configuration is in progress and completed. The Kampe et al. reference details the notification of user through a computer resident program that creates displays to update the status of events (column 7, lines 51-63). Kampe teaches the interception of unintelligible internal text status messages, before they can be displayed (column 6, lines 38-42 and 62-66). These messages are inherently internal, as they are not displayed. It would have been obvious to one of ordinary skill in the art at the time of invention to combine the notification system of Kampe et al. with notification and USB plug and play of the AAPA, in order to create a system that will clearly notify the user promptly of the progress of a configuration process, or problems with the configuration of the computer I/O system.

8. Both the AAPA and Kampe fail to teach the visual display for notifying the user in real time. However, Wilson teaches that it was well known to update icons in real time to give the user current information regarding the status of I/O devices (column 9, lines 44-49). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the notification system of Kampe et al. and the real time icon updates of Wilson with notification of the AAPA, in order to create a system that will notify the user promptly of the progress of a current status of the computer I/O system.

9. With regards to claim 2, the AAPA teaches that it is common in the art to have a computer system that uses message handling to send messages to applications (Figure 11), and that these applications include a mouse controller that creates visual representations of the user

movements. The AAPA further describes that the messages include changing the appearance of the cursor to indicate that the system is busy and that it is again available for normal use. There is no specific mentioning of the operation of the message handling system, or the state determination unit. The Kampe et al. reference covers these details more specifically and also includes more rigorous discussion of the display and processing. The Kampe et al. reference teaches the hooking and receiving of the messages, and determines what type the message it is (column 7, lines 11-13).

10. With regards to claims 3, 7, 8, 11-13, and 27-29, Kampe teaches these messages to include the beginning, milestone, and completion of event status updates (column 7, lines 55-63), and displays are generated for each of these messages to notify the user of the current status. Kampe teaches that the display may also include a progress indicator and a text legend (column 4, lines 54-64). The plugging in, beginning of the configuration process, and completion of the configuration process are examples of milestone events. It would have been obvious to one of ordinary skill in the art at the time of invention, to combine the AAPA and Wilson with Kampe to create a system and method which notifies the user when a change in the computer topology is detected, a reconfiguration is starting, taking place, and finished, so that the user is updated as to current state of the processing taking place.

11. With regards to claims 4, 5, 9, and 10, the applicant admits that it is common in the art to use the USB standard port as the serial bus port (page 1, lines 18-19). It would have been obvious to one of ordinary skill in the art at the time of invention, to use a USB port with the disclosed system to take advantage of the plug and play features of the USB standard. With further regards to claim 5, 9, and 10, the applicant admitted prior art discloses that compound

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hubs (Figure 4) such as the Fujitsu Universal LAN Hub® (Figure 5) are known, they can be used to replicate the function of a mouse port, a serial port, a printer port, and a keyboard port, and that they can be connected to the computer case through a universal serial bus port via a serial cable. It would have been obvious to one of ordinary skill in the art at the time of invention, to use a compound hub with the combined system of the AAPA, Wilson, and Kampe, for the replication of peripheral device ports to reduce the number of connections to the computer case.

12. With regards to claims 6 and 24, combined system of the applicant admitted prior art and Kampe et al. fails to teach the inclusion of an audio signal indicative of the status of the configuration. However, it was well known in the art at the time of invention that audio signals and audio output ports are used in conjunction with the operating system and other applications as a method of getting the attention of the user through a speaker. Wilson teaches the use of an audio signal, a beep, to alert the user to real time icon changes (column 9, lines 44-49). It is inherent that this beep is made through a speaker or other audio output device. It would have been obvious to one of ordinary skill in the art at the time of invention, to use the combined system of the AAPA and Kampe et al. with an audio output port, an audio signal indicative of the status of the configuration, and a speaker of Wilson, in order to better alert the user to changes in the configuration process.

13. With regards to claims 15, 16, and 18, Kampe teaches messages to include the beginning, milestone, and completion of event status updates (column 7, lines 55-63), and displays are generated for each of these messages to notify the user of the current status. Kampe teaches that the display may also include a progress indicator and a text legend (column 4, lines 54-64).

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14. With regards to claims 19 and 20, Wilson teaches the updating of icons in real time (column 9, lines 44-49).

15. Claims 14, 17, 21-23, 25, 26, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant admitted prior art (AAPA), U.S. Patent 5,953,010 to Kampe et al., and U.S. Patent 5,386,360 to Wilson et al. as applied to claims 1-13, 15-16, 18-20, 24, and 27-29 above, and further in view of U.S. Patent 6,466,981 to Levy.

16. With regards to claims 14, 17, 21- 23, 25, 26, and 30, Kampe, Wilson and the AAPA are silent with regards to the use of graphical user interfaces (GUIs) including an icon resident in a system tray. However, Levy teaches that it was well known at the time of invention to use icons in a system tray to provide notification the user of system information (column 10, lines 18-20). Levy also teaches the changing of color to indicate differing states. It would have been obvious to one of ordinary skill in the art at the time of invention to use the well-known system tray icon of Levy with the combined system of the AAPA, Kampe, and Wilson, in order to provide clear user notification of system messages.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D Schneider whose telephone number is (703) 305-7991. The examiner can normally be reached on M-F, 8-4:30.

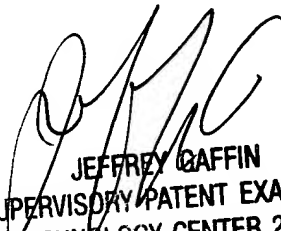
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Gaffin can be reached on (703) 308-3301. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

JDS
July 10, 2003


JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100